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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/821,025	03/19/97	BIJL	H 2461320065900

HM31/0615

EXAMINER

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MARX, I

ART UNIT  
1631

PAPER NUMBER

DATE MAILED: 06/15/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No. <b>08/821,025</b>	Applicant(s) <b>Bijl et al.</b>
	Examiner <b>Irene Marx</b>	Group Art Unit <b>1651</b>

Responsive to communication(s) filed on Apr 27, 1998

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

- Claim(s) 1-40 is/are pending in the application.  
 Of the above, claim(s) 1-26 and 34-36 is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 27-33 and 37-40 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been  
 received.  
 received in Application No. (Series Code/Serial Number) \_\_\_\_\_.  
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- Notice of References Cited, PTO-892  
 Information Disclosure Statement(s), PTO-1449, Paper No(s). 4  
 Interview Summary, PTO-413  
 Notice of Draftsperson's Patent Drawing Review, PTO-948  
 Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

The application should be reviewed for errors.

Applicant's election with traverse of Group II, claims 27-33 and 37-40 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that it would not be unduly burdensome to examine a method of making and a method of using the elected composition. However, this is not found persuasive because the methods as claim designated are two material different methods of using compositions, which require searches having a different scope. Moreover, the references which would be applied to the compositions of Group II would not necessarily anticipate or render obvious the methods of use of groups I and III.

Moreover, as to the question of burden of search, classification of subject matter is merely one indication of the burdensome nature of the search involved. The literature search, particularly relevant in this art, is not co-extensive and is much more important in evaluating the burden of search. Burden in examining materially different groups having materially different issues also exists.

Clearly different searches and issues are involved with each group.

For these reasons, the restriction requirement is deemed proper and is adhered to. The restriction requirement is hereby made FINAL. .

Claims 27-33 and 37-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27-33 and 37-40 are confusing in the recitation of "average" with respect to the dry matter content. It is unclear what is intended. How is this average to be ascertained?

Claim 27 is confusing in the recitation "comprises, or is obtained from, a fungus". It is unclear what is intended by an extrudate "obtained from" a fungus in this context .

Claim 30 is vague, indefinite and confusing in the recitation "dried granules derived from a microbial biomass which have been dried and have...". The recitation of "derived" in this context is ambiguous, since it is unclear whether a physical, physiological or chemical derivation process is intended. Are the granules dried or is the biomass dried. How are the granules dried? In claim 31 are the granules extruded after drying?

In claims 33 and 38, there is no clear distinction between granular particles and granules. They have the same dimensions and appear to have identical properties.

Claims 39 and 40 are rejected under 35 U.S.C. §101 as being substantial duplicates. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to reject the other as being a substantial duplicate of the allowed claim. MPEP § 706.03(k).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27, 29, 30-32 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by

Rhodes *et al.*.

The claims are drawn to a dried, granular, biomass, which can be extruded and which optionally is fungal biomass.

Rhodes *et al.* disclose fungal biomass which comprises dried, extruded granules. See e.g., Examples. From Table III it can be presumed that the average dry matter content is at least 30% and can be greater than 80%.

Claims 28-33 and 30-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes *et al.* taken with Huang *et al.*, Barclay and Kyle.

Rhodes *et al.* disclose fungal biomass which comprises dried, extruded granules. See e.g., Examples. From Table III it is apparent that the average dry matter content is at least 30% and can be greater than 80%.

The reference differs from the claimed invention in that the precise range of average dry weights is not disclosed. However, Huang adequately demonstrate that it is well known in the art to prepare fungal biomass having an average dry matter content of 30-70% is desirable in dried extruded fungal products (See, e.g., Abstract and col. 3, lines 11-15). It is apparent that the extruded product of Example 1 has the required dimensions (col. 6, lines 50-57). However, even

if the dimensions are not within the claimed ranges, one of ordinary skill in the art would have selected an extrusion apparatus tailored to the specific parameters. The adjustment of parameters such as size, degree of dryness, nature microbial biomass, etc. for optimization purposes would clearly have been within the purview of the ordinary artisan in this art.

As to *Mortierella* biomass, Kyle teaches a dried microbial biomass of *Mortierella* containing unsaturated fatty acids (See, e.g., Example 2). In addition, Barclay teaches a similar dried product which comprises microbial biomass containing about 70% dry matter, which is granulated and/or extruded (See, e.g., col. 33, lines 1-3) and which also contains unsaturated fatty acids.

One of ordinary skill in the art would have been motivated to substitute the microbial biomass of *Mortierella* as a functional equivalent of the additive taught by Barclay with a reasonable expectation of success.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the product of Rhodes *et al.* according to the teachings of Huang *et al.*, Barclay and Kyle by using a variety of microbes, including *Mortierella* and adjusting the size of the granules and/or extrudate, depending on the application for which the biomass is intended, as adequately demonstrated by the references.

Thus, the claimed invention as a whole was clearly prima facie obvious, especially in the absence of sufficient, clear and convincing evidence to the contrary.

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to **Group Art Unit 1651**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is (703) 308-2922.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn, can be reached on (703) 308-4743. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

*Irene Marx*  
Irene Marx  
Primary Examiner  
Art Unit 1651